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WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

**COLORADO STATE UNIVERSITY EXPERIMENT STATION
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO**

AS OF
FEB. 1, 1977

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SNOW COURSE MEASUREMENTS BY A SURVEY TEAM IN UTAH'S WASATCH RANGE.
ORC-254-10

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, 6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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WATERSHED II - ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca, Southeastern Baca, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, Kiowa County, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III - RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Conejos, Mosca Hooper, Mt. Blanca, Sanchez, and Culebra Soil Conservation Districts.

WATERSHED IV - RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Upper Chama, East Rio Arriba, Taos, Lindrieth, Jemez, Santa Fe - Pojoaque, Sandoval, Tijeras, Cuba, and Edgewood Soil Conservation Districts.

WATERSHED V - DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, San Miguel Basin, and Glade Park Soil Conservation Districts.

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WATERSHED VIII - YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, White River, and Douglas Creek Soil Conservation Districts.

WATERSHED IX - LOWER SOUTH PLATTE RIVER WATERSHED

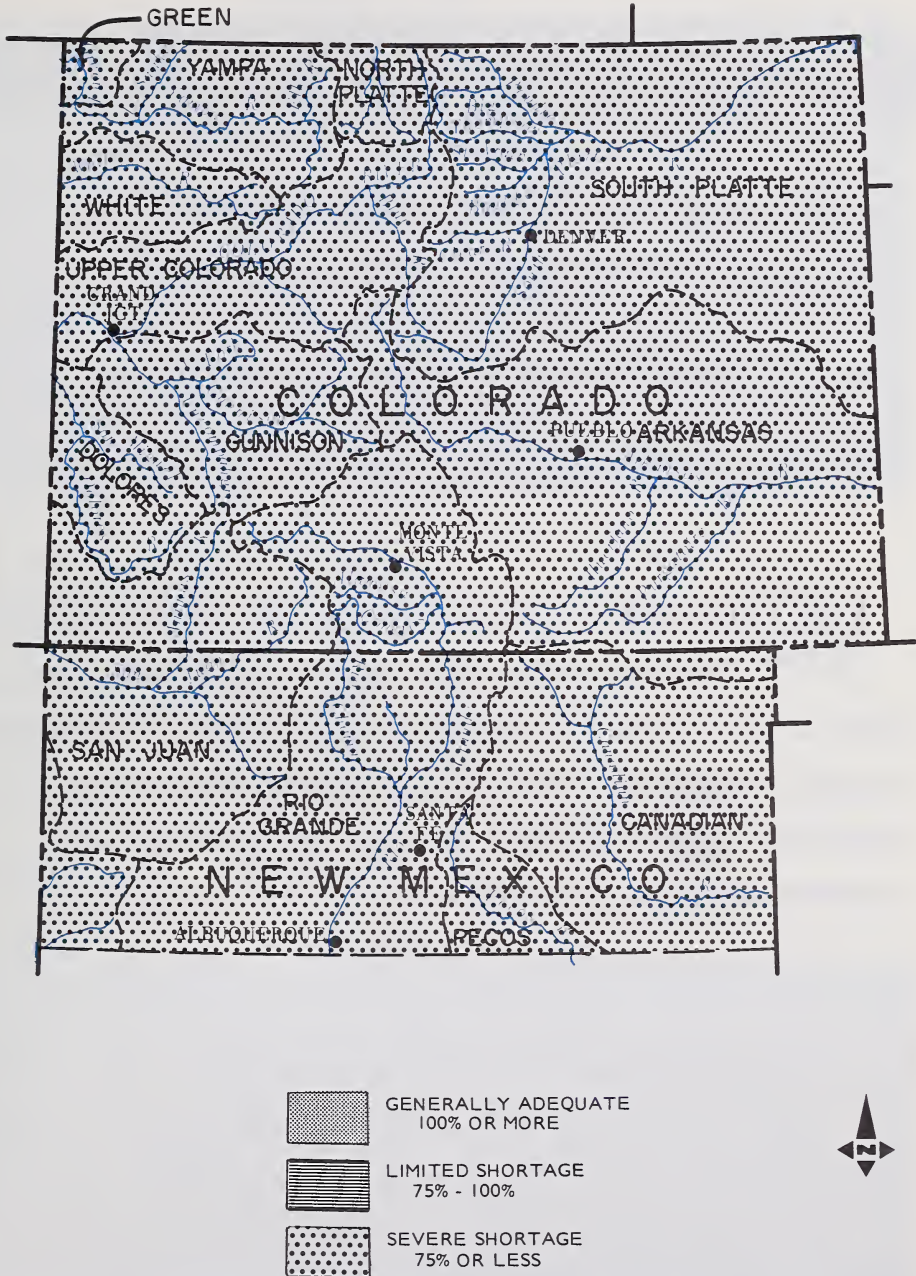
Describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan, Rock Creek, and Yuma Soil Conservation Districts.

APPENDIX I - SNOW SURVEY MEASUREMENTS

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WATER SUPPLY OUTLOOK

as of
FEBRUARY 1, 1977



The map on this page indicates the most probable water supply as of the date of this report. Estimates assume average conditions of snow fall, precipitation and other factors from this date to the end of the forecast period. As the season progresses accuracy of estimates improve. In addition to expected streamflow, reservoir storage, soil moisture in irrigated areas, and other factors are considered in estimating water supply. Estimates apply to irrigated areas along the main streams and may not indicate conditions on small tributaries.

WATER SUPPLY CONDITIONS

as of

FEBRUARY 1, 1977

THE MOUNTAIN SNOWPACK IS VERY LOW IN ALL AREAS WITH THE EXCEPTION OF THE SANGRE DE CRISTO RANGE. POOR SOIL MOISTURE CONDITIONS IN IRRIGATED AREAS COUPLED WITH THE EXTREMELY LOW SNOWPACK WILL RESULT IN WATER SHORTAGES THIS SUMMER. EVEN IF ABOVE AVERAGE SNOWFALL WERE RECEIVED FROM NOW ON THE PROJECTED RUNOFF WOULD STILL BE BELOW NORMAL. ABOUT 60% OF THE SEASON'S SNOWFALL SHOULD BE ON THE GROUND BY THE FIRST OF FEBRUARY. WATER USERS SHOULD CONSIDER WHAT CONSERVATION MEASURES CAN BE IMPLEMENTED TO HELP THEIR SPECIFIC SITUATION.



COLORADO

-- SNOWFALL IN THE MOUNTAINS HAS BEEN EXTREMELY DEFICIENT SO FAR THIS WINTER. IT IS PRESENTLY 50 TO 75% BELOW NORMAL. BELOW NORMAL SOIL MOISTURE CONDITIONS FURTHER COMPOUND WATER PROBLEMS. PROJECTED STREAMFLOWS ASSUMING NORMAL PRECIPITATION FOR THE REMAINDER OF THE SEASON WILL BE 40 TO 60% BELOW AVERAGE. THE ONLY BRIGHT NOTE IS CARRYOVER RESERVOIR STORAGE WHICH IS NEAR AVERAGE IN MOST AREAS.



NEW MEXICO

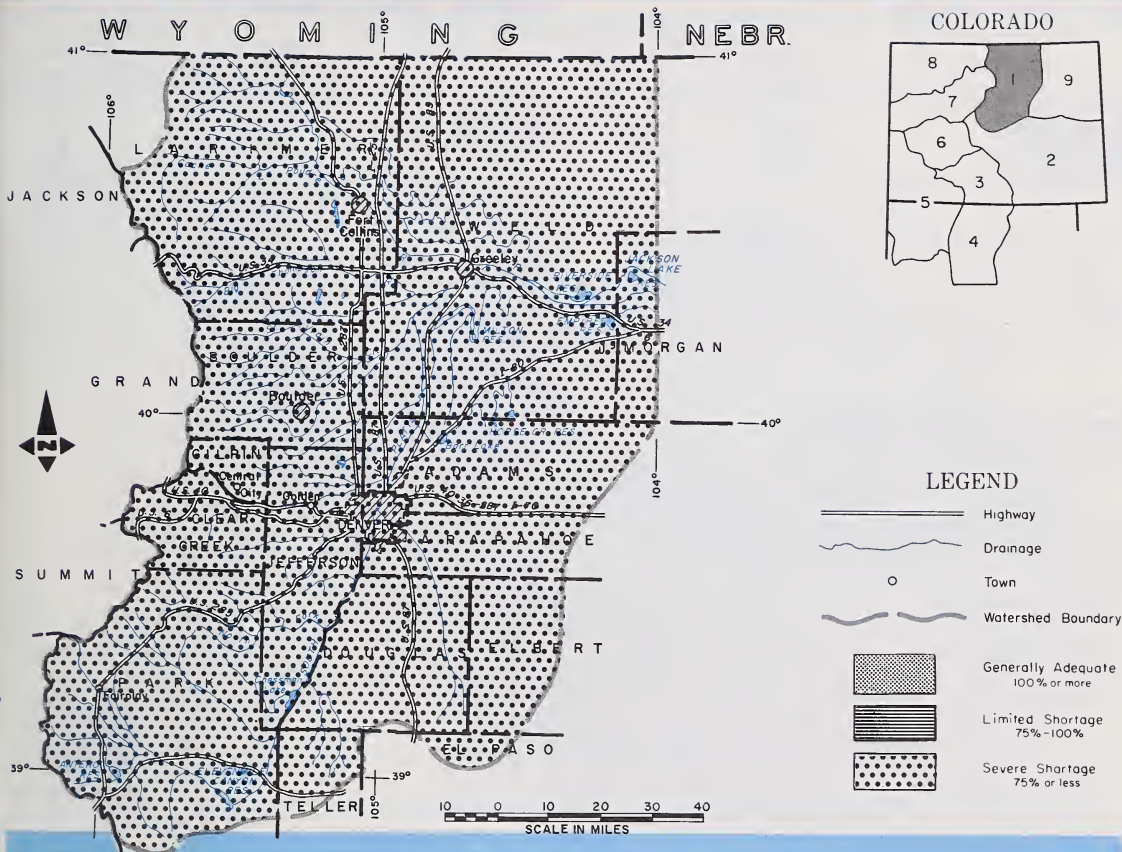
-- SNOWFALL HAS BEEN NEAR AVERAGE IN THE SANGRE DE CRISTO RANGE BUT HAS BEEN MUCH BELOW ON THE HEADWATERS OF THE RIO GRANDE WHERE SNOWPACK IS 75% BELOW NORMAL. ASSUMING NORMAL PRECIPITATION FOR THE REMAINDER OF THE SEASON THE RIO GRANDE SHOULD FLOW LESS THAN 50% OF NORMAL. WATER SHORTAGES CAN BE EXPECTED ON MOST STREAMS. SOIL MOISTURE VARIES FROM POOR TO GOOD. CARRYOVER RESERVOIR STORAGE IS SLIGHTLY BELOW NORMAL.

WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of

FEBRUARY 1, 1977

U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



YOUR WATER SUPPLY

CURRENT SNOWPACK ON THESE DRAINAGES IS VERY LOW, AVERAGING ABOUT 40% OF NORMAL. SUMMER STREAMFLOW WILL BE MUCH BELOW AVERAGE. CARRYOVER STORAGE IS NEAR NORMAL AND WILL BE AN EXCELLENT SUPPLEMENT. SOIL MOISTURE IS DEFICIENT. ABOUT 60% OF THE SNOW SEASON IS PAST. THREE MORE MONTHS REMAIN TO INCREASE THE SNOWPACK.

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STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average*
Big Thompson River at Drake (1)	64	60	107
Boulder Creek at Orodell	29	59	49
Cache La Poudre River at Canyon Mouth (2)	150	61	247
Clear Creek at Golden (3)	70	55	127
St. Vrain Creek at Lyons (4)	44	59	75

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Bear Creek	Poor	Poor
Coal Creek	Poor	Poor
North Fork of South Platte	Poor	Poor
North Fork of Cache La Poudre	Poor	Poor
Ralston Creek	Poor	Poor
Rock Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average*
Antero	33	15	16	14
Barr Lake	32	25	25	21
Black Hollow	8	4	4	4
Boyd Lake	44	34	39	37
Cache La Poudre	10	0	4	8
Carter Lake	109	64	92	77
Chambers Lake	9	2	2	3
Cheesman	79	32	49	56
Cobb Lake	34	5	15	15
Eleven Mile	98	90	98	87
Fossil Creek	12	6	4	7
Gross	43	22	24	29
Halligan	6	2	2	3
Horsetooth	144	71	92	86
Lake Loveland	14	9	10	9
Lone Tree	9	3	4	6
Mariano	5	5	5	5
Marshall	10	3	4	4
Marston	18	16	13	14
Milton	24	15	16	13
Standley	42	27	29	15
Terry	8	6	6	5
Union	13	13	11	10
Windsor	19	8	12	10

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Big Thompson	5	30	27
Boulder	3	64	47
Cache La Poudre	6	35	34
Clear Creek	6	69	58
Saint Vrain	2	42	36
South Platte	2	35	37

* 1958-1972 period.

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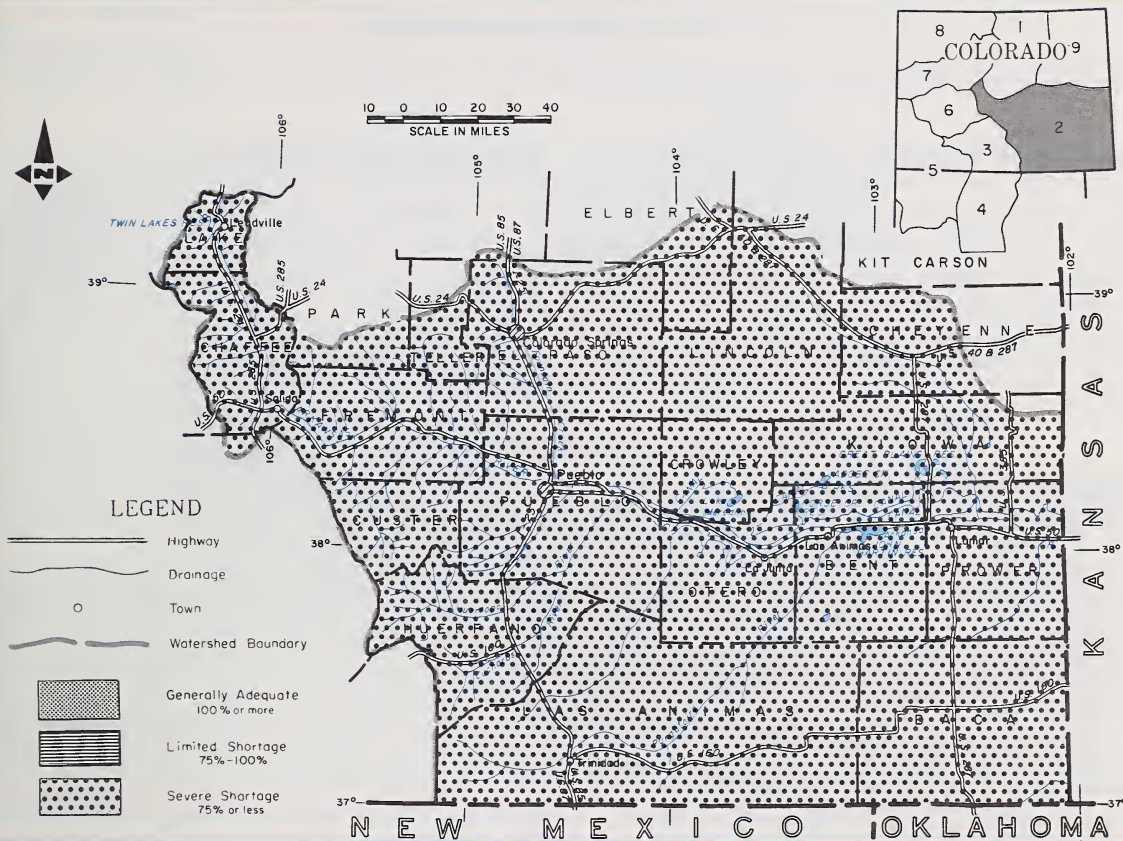
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WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE ARKANSAS RIVER WATERSHED IN COLORADO

as of

FEBRUARY 1, 1977

U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



YOUR WATER SUPPLY

THE MOUNTAIN SNOWPACK IS VERY POOR ON THE HEADWATERS OF THE ARKANSAS.

THE EAST SLOPES OF THE SANGRE DE CRISTO RANGE ARE IN BETTER SHAPE BUT STILL BELOW AVERAGE. SOILS ARE VERY DRY AND CARRYOVER RESERVOIR STORAGE IS EXTREMELY POOR. WITH THESE CONDITIONS PREVAILING THE OUTLOOK FOR WATER SUPPLIES IS POOR. EVEN WITH ABOVE AVERAGE SNOWFALL FOR THE REMAINDER OF THE SEASON WATER SUPPLIES WILL BE DEFICIENT FOR THE IRRIGATION SESON.

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STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average *
Arkansas River near Pueblo (1)	145	50	290
Arkansas River at Salida (1)	165	53	313
Cucharas River near La Veta	7	70	10
Huerfano River near Redwing	8	53	15
Purgatoire River at Trinidad	23	61	38

(1) Observed flow plus change in Clear Creek, Twin Lakes and Turquoise Reservoirs minus diversions through Busk Ivanhoe, Boustead, Divide, Twin Lakes and Homestake Tunnels and Ewing, Front Pass, Wurtz and Columbine ditches.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Apishapa River	Poor	Poor
Fountain Creek	Poor	Poor
Grape Creek	Poor	Poor
Hardscrabble Creek	Poor	Poor
Monument Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average *
Adobe	62	0	0	17
Clear Creek	11	6	5	8
Cucharas	40	0	0	3
Great Plains	150	0	0	49
Horse Creek	27	8	4	6
John Martin	354	12	7	85
Meredith	42	0	0	10
Model	15	0	1	3
Turquoise	121	32	52	16
Twin Lakes	58	7	18	26

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Arkansas	7	37	35
Cucharas	2	101	89
Purgatoire	1	63	--

* 1958-1972 period.

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WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE UPPER RIO GRANDE WATERSHED IN COLORADO

as of

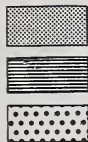
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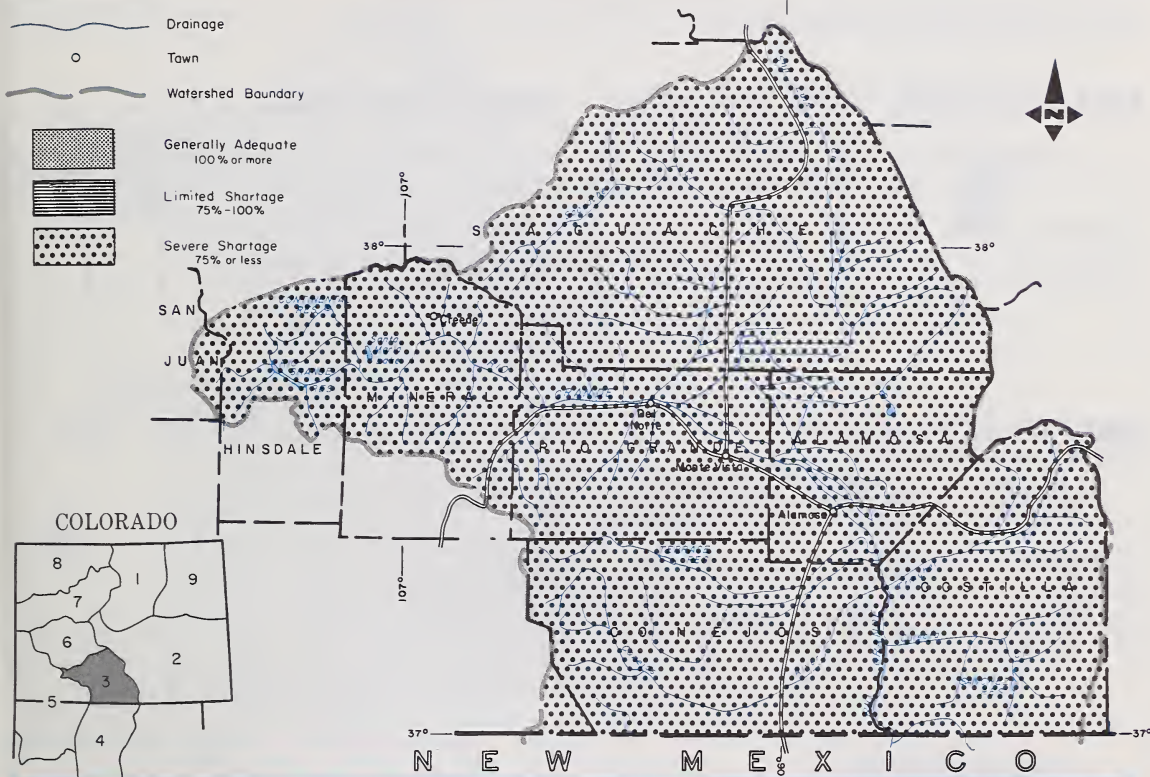
LEGEND

-  Highway
-  Drainage
-  Town
-  Watershed Boundary

10 0 10 20 30 40
SCALE IN MILES



- Generally Adequate
100% or more
- Limited Shortage
75%-100%
- Severe Shortage
75% or less



YOUR WATER SUPPLY

THE SNOWPACK IN THE RIO GRANDE DRAINAGE IS MUCH BELOW NORMAL EXCEPT FOR THE EAST SIDE OF THE VALLEY WHERE SNOW IS EVEN ABOVE NORMAL. WATER SUPPLIES WILL STILL BE MUCH BELOW NORMAL THIS SUMMER. WATER USERS ON DIRECT FLOW RIGHTS WILL BE ESPECIALLY HARD HIT. CARRYOVER STORAGE IS ABOUT 75% OF NORMAL IN VALLEY RESERVOIRS. SOILS ARE DRY.

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STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average *
Alamosa Creek above Terrace Reservoir	30	48	62
Conejos River near Mogote (1)	100	54	184
Culebra Creek at San Luis (2)	11	65	17
Rio Grande at 30 Mile Bridge (3)	74	61	121
Rio Grande near Del Norte (3)	275	59	467
South Fork of Rio Grande at South Fork	60	52	115

(1) Observed flow plus change in storage in Platoro Reservoir. (2) Observed flow plus change in storage in Sanchez Reservoir. (3) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoirs.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Saguache Creek	Poor	Poor
Sangre de Cristo Cr.	Poor	Poor
Trinchera Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average *
Continental	27	16	4	5
Platoro	60	14	—	9
Rio Grande	46	3	16	19
Sanchez	103	4	6	13
Santa Maria	45	7	9	6
Terrace	18	5	8	5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Alamosa	2	22	19
Conejos	2	51	32
Culebra	2	100	77
Rio Grande	10	26	25

* 1958-1972 period.

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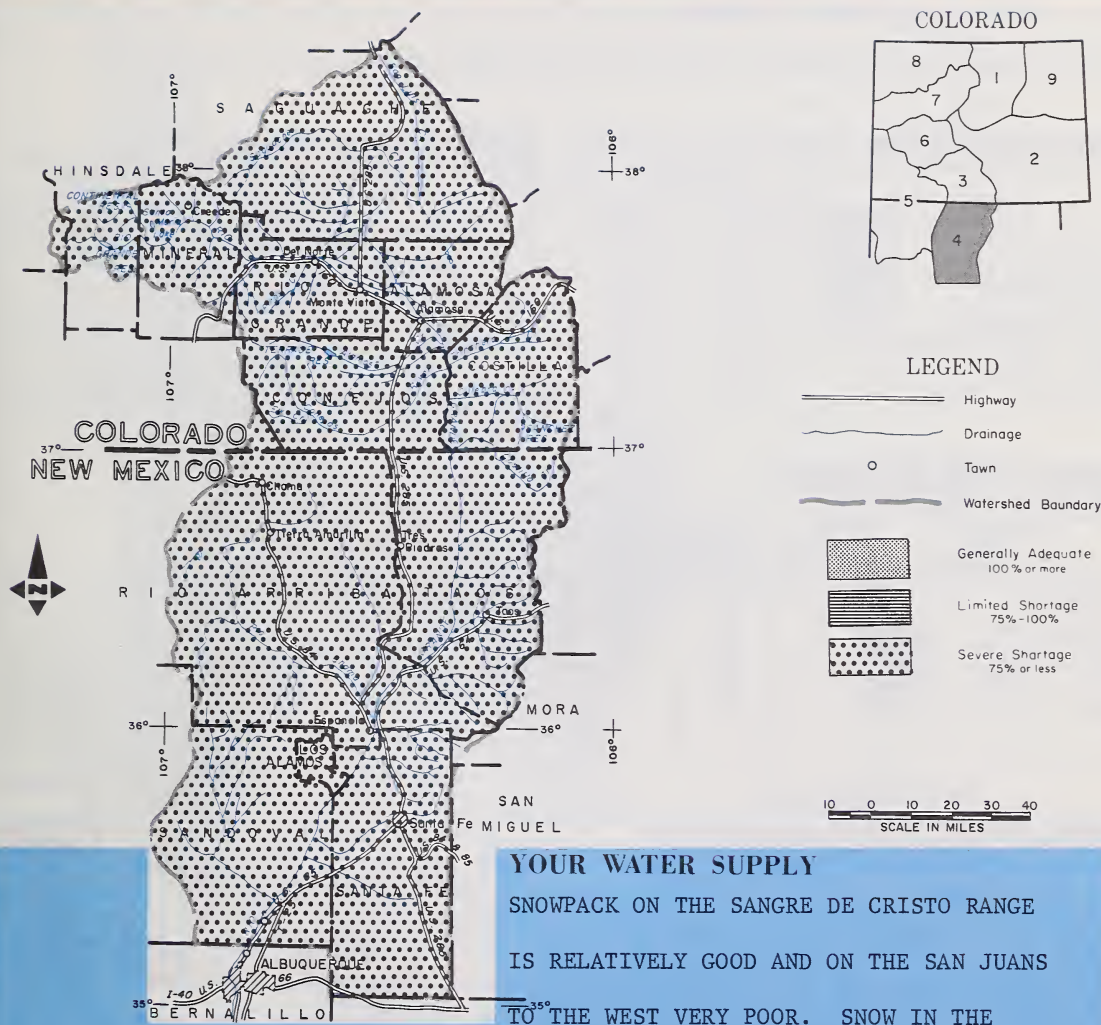


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WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE RIO GRANDE WATERSHED IN NEW MEXICO

as of
FEBRUARY 1, 1977

U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



YOUR WATER SUPPLY
SNOWPACK ON THE SANGRE DE CRISTO RANGE
IS RELATIVELY GOOD AND ON THE SAN JUANS
TO THE WEST VERY POOR. SNOW IN THE
RIO GRANDE BASIN IN COLORADO IS NEAR THE MINIMUM OF RECORD. STREAMS ARE
FORECASTED TO FLOW MUCH BELOW NORMAL THIS SUMMER EXCEPT THOSE ORIGINATING IN
THE SANGRE DE CRISTOS. SOIL MOISTURE IS REPORTED AS POOR TO GOOD.

This report prepared by

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U.S. DEPARTMENT OF AGRICULTURE—SOIL CONSERVATION SERVICE

STREAMFLOW FORECASTS (1000 Ac. Ft.) March—July

FORECAST POINT	FORE-CAST	% of Average	Average *
Costilla Creek at Costilla (1)	11	58	19
Jemez River near Jemez	16	55	29
Pecos River at Pecos	34	83	41
Red River at Mouth near Questa	22	76	29
Rio Chama at El Vado	90	47	190
Rio Grande at Otowi (2)	235	45	526
Rio Grande at San Marcial (2)	160	45	355
Rio Hondo near Valdez	8	57	14
Santa Cruz River at Cundiyo	7	58	12

(1) Observed flow plus change in Costilla Reservoir. (2) Observed flow plus change in storage in El Vado and Abiquiu Reservoir.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Embudo Creek	Poor	Poor
Mora River	Poor	Poor
Nambe Creek	Poor	Poor
Rio Ojo Caliente	Poor	Poor
Rio Pueblo de Taos	Poor	Poor
Santa Fe Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average *
Alamogordo	111	20	35	80
Avalon	5	4	3	3
Caballo	344	133	69	50
Conchas	273	83	82	185
El Vado	195	110	122	2
Elephant Butte	2195	318	684	442
McMillan	34	3	5	17

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Pecos	1	93	112
Red River	2	54	80
Rio Chama	2	53	50
Rio Grande, NM	8	86	75
Rio Hondo	1	65	--

* 1958-1972 period.

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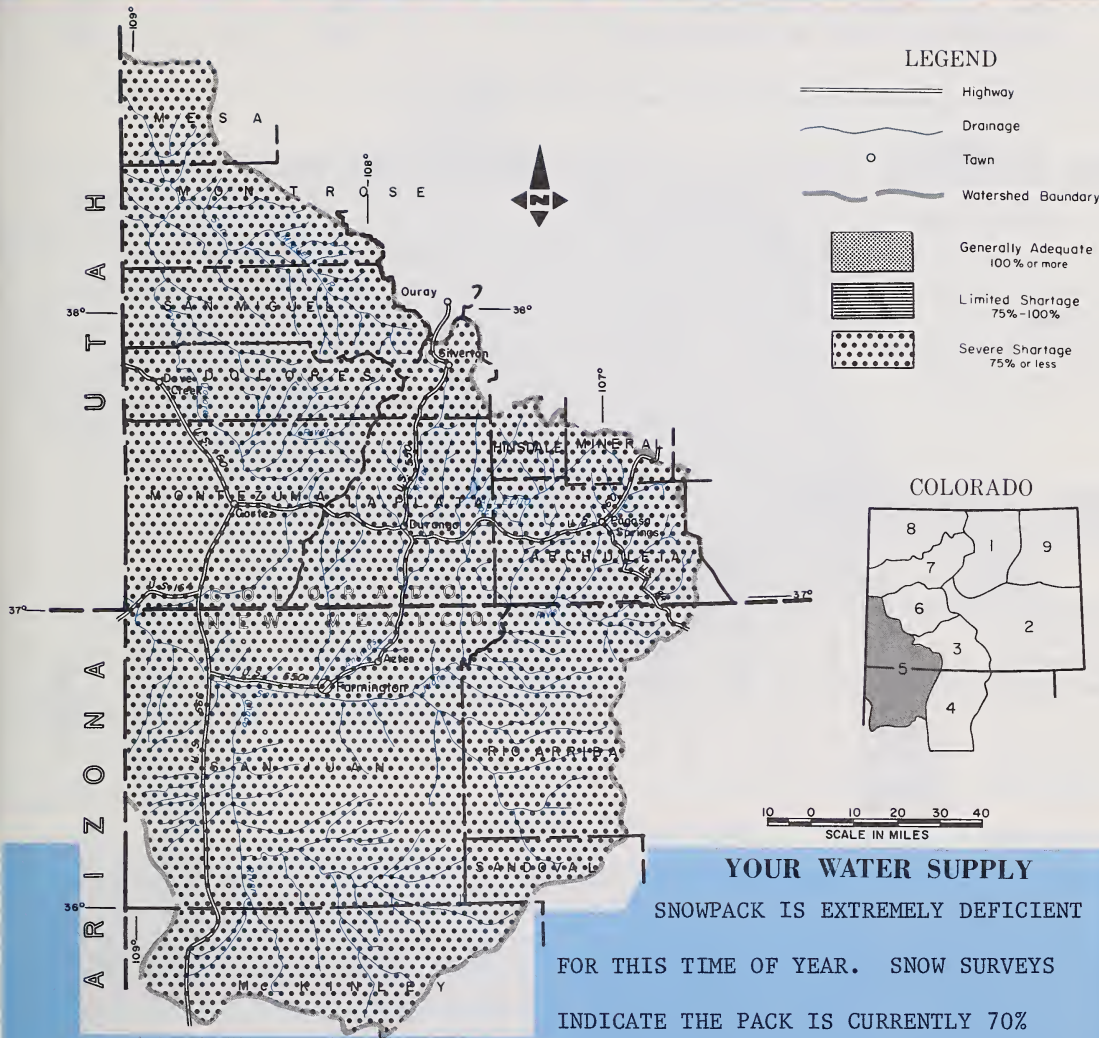


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WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN WATERSHEDS IN COLORADO AND NEW MEXICO

as of
FEBRUARY 1, 1977

U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



**YOUR WATER SUPPLY
SNOWPACK IS EXTREMELY DEFICIENT
FOR THIS TIME OF YEAR. SNOW SURVEYS
INDICATE THE PACK IS CURRENTLY 70%
BELOW AVERAGE. MANY COURSES RECORDED THE MINIMUM WATER EVER MEASURED IN THE
LAST FORTY YEARS. SOIL MOISTURE IN IRRIGATED AREAS IS POOR. PROJECTED
STREAMFLOWS WILL BE WELL BELOW AVERAGE.**

This report prepared by

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STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average *
Animas River at Durango	235	56	423
Dolores River at Dolores	115	50	232
La Plata River at Hesperus	12	50	24
Los Pinos River at Bayfield (1)	115	58	198
Mancos River near Towac (3)	7	50	14
Inflow to Navajo River (1 & 2)	300	50	597
Piedra Creek at Arboles	88	48	185
San Juan River at Carracas	160	45	354
San Miguel River at Placerville	68	52	130

(1) Observed flow plus change in storage in Vallecito Reservoir. (2) April—July (3) March—July

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Florida River	Poor	Poor
Hermosa Creek	Poor	Poor
West Dolores River	Poor	Poor
Williams Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average *
Groundhog	22	6	9	9
Jackson Gulch	10	17	6	4
Lemon	40	17	20	19
Navajo	1696	1145	1130	1237
Vallecito	126	47	53	53

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Animas	5	31	27
Dolores	5	31	27
San Juan	5	45	31

* 1958-1972 period.

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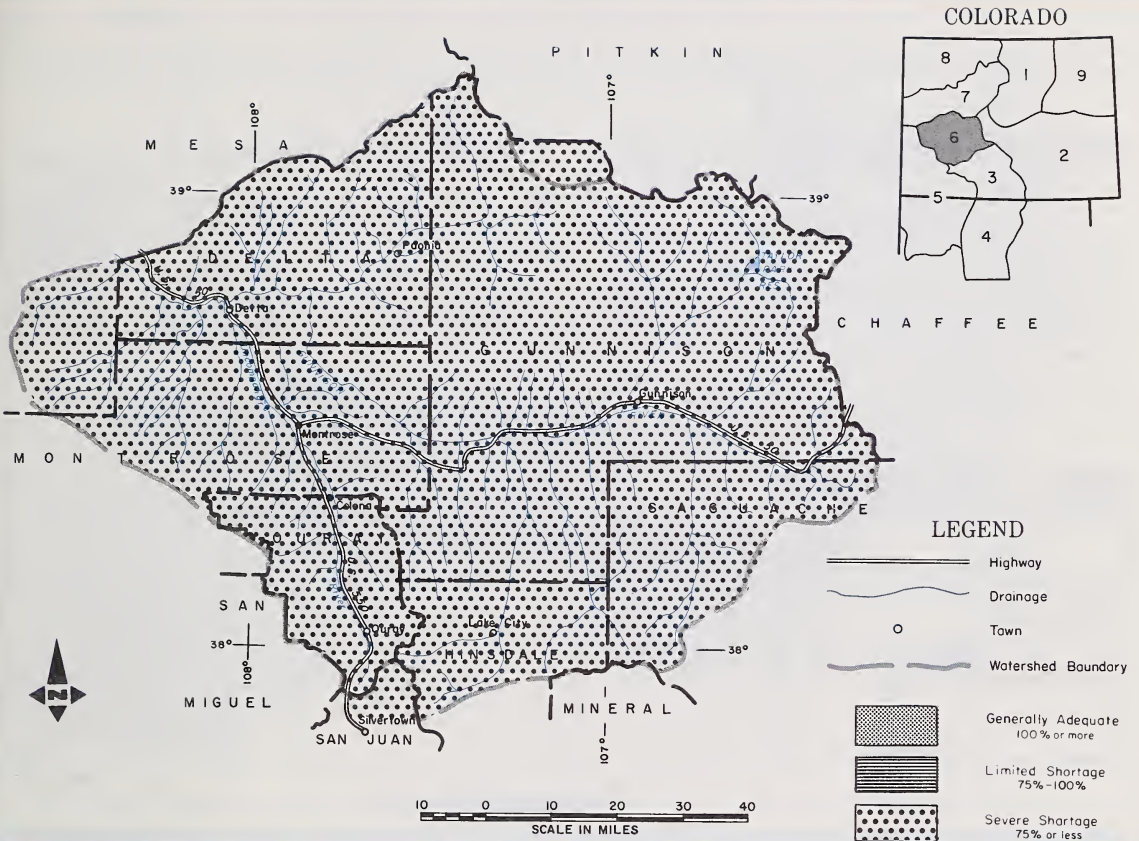
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WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE GUNNISON RIVER WATERSHED IN COLORADO

as of

FEBRUARY 1, 1977

U.S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



YOUR WATER SUPPLY

THE MOUNTAIN SNOWPACK IS 60 TO 70% BELOW NORMAL FOR THIS TIME OF YEAR. MANY SNOW COURSES RECORDED THE MINIMUM OF RECORD FOR THIS DATE. APPROXIMATELY 60% OF THE SNOW SEASON IS NOW PASSED. THE OUTLOOK FOR WATER SUPPLIES FOR THE FORTHCOMING SEASON ARE VERY POOR. SOILS REMAIN DRY. EVEN WITH MUCH ABOVE AVERAGE SNOWFALL FOR THE REMAINDER OF THE SNOW SEASON IT IS UNLIKELY RUNOFF WILL APPROACH AVERAGE. CARRYOVER RESERVOIR STORAGE IS NEAR AVERAGE.

This report prepared by

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U.S. DEPARTMENT OF AGRICULTURE—SOIL CONSERVATION SERVICE

STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average *
Gunnison River inflow to Blue Mesa Reservoir (1)	400	51	792
Gunnison River near Grand Junction (2)	550	46	1184
North Fork of Gunnison (3)	130	49	263
Surface Creek near Cedaredge	10	65	16
Uncompahgre River at Colona	64	48	134

(1) Observed flow plus change in storage in Taylor Reservoir. (2) Observed flow plus change in storage in Blue Mesa, Morrow Point and Taylor Reservoirs. (3) Observed flow plus change in storage in Paonia Reservoir.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Ohio Creek	Poor	Poor
Slate River	Poor	Poor
Taylor River	Poor	Poor
Tomichi Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average *
Blue Mesa	830	415	435	491
Morrow Point	121	115	115	100
Taylor	106	59	51	63

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Gunnison	10	39	32
Surface Creek	3	36	26
Uncompahgre	3	40	39

* 1958-1972 period.

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FEBRUARY 1, 1977

U.S. DEPARTMENT OF AGRICULTURE—SOIL CONSERVATION SERVICE

STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average *
Blue River inflow to Dillon Reservoir	78	46	169
Blue River inflow to Green Mountain Reservoir (1)	145	49	297
Colorado River near Cameo (6)	1185	50	2370
Colorado River near Dotsero (3)	690	48	1434
Colorado River inflow to Granby Reservoir (2)	135	60	228
Roaring Fork at Glenwood Springs (4)	400	56	713
Williams Fork near Parshall (5)	30	48	63
Willow Creek inflow to Willow Creek Reservoir	22	47	47

(1) Observed flow plus diversions through Roberts Tunnel and change in storage in Dillon Reservoir. (2) Observed flow corrected for change in storage in Lake Granby as furnished by U.S.B.R. and diversions by Adams Tunnel and Grand River Ditch. (3) Observed flow plus the changes as indicated in (1), (2) and (5) plus Moffat Ditch and change in Homestake, Williams Fork, Green Mt. and Willow Creek Reservoirs. (4) Observed flow plus diversions through Divide and Twin Lakes Tunnels plus change in storage in Ruedi Reservoir. (5) Observed flow plus diversions through August P. Gumlick Tunnel. (6) Observed flow plus the changes as indicated in (3) and (4).

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Brush	Poor	Poor
Eagle River	Poor	Poor
Gypsum Creek	Poor	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average *
Dillon	254	215	229	234
Granby	466	216	319	255
Green Mountain	139	76	85	77
Homestake	43	23	0	20
Ruedi	101	69	68	70
Vega	32	6	12	10
Williams Fork	97	52	52	34
Willow Creek	9	6	7	6

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Blue River	6	42	43
Colorado	17	43	40
Plateau	3	35	26
Roaring Fork	7	37	33
Williams Fork	3	46	43
Willow	2	43	40

* 1958-1972 period.

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as of
FEBRUARY 1, 1977

The map displays the Upper Arkansas River Watershed, which spans across the state boundaries of Wyoming, Colorado, and Utah. The watershed is divided into several counties, with Garfield, Blaine, and Routt counties in Colorado being the primary focus. Major towns within the watershed include Craig, Steamboat Springs, and Delta. The map is shaded to indicate the level of water availability: generally adequate (100% or more), limited shortage (75%-100%), and severe shortage (75% or less). A legend, scale bar, and north arrow are also present.

LEGEND

- Highway
- Drainage
- Town
- Watershed Boundary
- Generally Adequate 100% or more
- Limited Shortage 75%-100%
- Severe Shortage 75% or less

SCALE IN MILES

10 0 10 20 30

THE SNOWPACK IN NORTHWESTERN COLORADO IS MUCH BELOW NORMAL. IN SOME CASES INDIVIDUAL SNOW COURSES INDICATE SNOWFALL IS APPROACHING OR BELOW MINIMUM OF RECORD. SUMMER STREAMFLOW WILL BE CONSIDERABLY BELOW NORMAL. SMALL STREAMS WILL HAVE LIMITED FLOWS. SOILS IN THE IRRIGATED AREAS ARE GENERALLY DRY AND HAVE LITTLE SNOW COVER.

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STREAMFLOW FORECASTS (1000 Ac. Ft.) April—September

FORECAST POINT	FORE-CAST	% of Average	Average *
Elk River at Clark	125	63	198
Laramie River near Woods	65	51	127
Little Snake River at Lily	150	46	324
North Platte River at Northgate	125	52	240
White River near Meeker	165	56	295
Yampa River near Maybell	450	50	905
Yampa River at Steamboat Springs	130	47	274

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Canadian River	Poor	Poor
Hunt Creek	Poor	Poor
Illinois River	Poor	Poor
Michigan River	Poor	Poor
Oak Creek	Poor	Poor
Trout Creek	Poor	Poor

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average *
Elk	2	33	27
Laramie	2	32	25
North Platte	5	52	47
White	2	55	41
Yampa	5	49	42

* 1958-1972 period.

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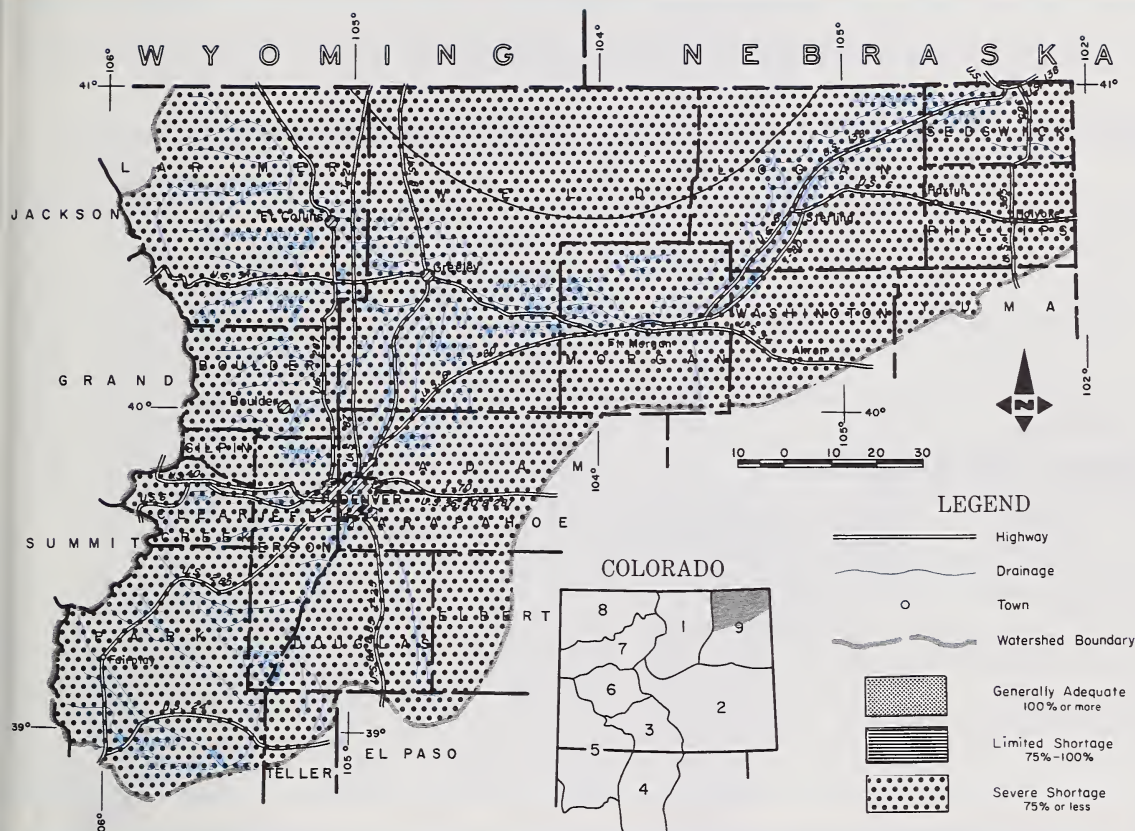


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WATER SUPPLY OUTLOOK FOR THE SOIL CONSERVATION DISTRICTS IN THE LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO

as of
FEBRUARY 1, 1977

U. S. DEPARTMENT OF AGRICULTURE · SOIL CONSERVATION SERVICE
CSU EXPERIMENT STATION, STATE ENGINEERS OF COLORADO AND NEW MEXICO



YOUR WATER SUPPLY

THE MOUNTAIN SNOWPACK IS 40 TO 70% BELOW NORMAL FOR THIS TIME OF YEAR. MANY SNOW COURSES MEASURED THE MINIMUM EVER RECORDED IN THE PAST 40 YEARS.

FORECAST WATER SUPPLIES WILL BE MUCH BELOW NORMAL EVEN IF WE RECEIVE ABOVE AVERAGE SNOWFALL FOR THE REMAINDER OF THE SEASON. SOIL MOISTURE IS BELOW NORMAL. CARRYOVER STORAGE IS NEAR NORMAL WHICH IS THE ONLY OPTIMISTIC NOTE FOR THE FUTURE.

This report prepared by

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FORECAST POINT	FORE-CAST	% of Average	Average*
Big Thompson River at Drake (1)	64	60	107
Boulder Creek at Orodell	29	59	49
Cache La Poudre River at Canyon Mouth (2)	150	61	247
Clear Creek at Golden (3)	70	55	127
Saint Vrain Creek at Lyons (4)	44	59	75

(1) Observed flow plus by-pass to power plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion through August P. Gumlick Tunnel. (4) Observed flow plus change in storage in Price Reservoir.

WATER SUPPLY OUTLOOK

Expressed as "Poor, Fair, Average, Excellent" With Respect to Usual Supply.

STREAM or AREA	Flow Period	
	Spring Season	Late Season
South Platte from Greeley to Fort Morgan	Poor	Poor
South Platte from Fort Morgan to Sterling	Poor	Poor
South Platte below Sterling	Poor	Poor

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average*
Big Thompson	5	30	27
Boulder	3	64	47
Cache La Poudre	6	35	34
Clear Creek	6	69	58
Saint Vrain	2	42	36
South Platte	2	35	37

RESERVOIR STORAGE (Thousand Ac. Ft.)

END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average*
Carter	109	64	92	77
Cheesman	79	32	49	56
Eleven Mile	98	90	98	87
Empire	38	26	21	26
Horsetooth	144	71	92	86
Jackson	35	30	20	28
Julesburg	28	19	20	20
Point of Rocks	70	50	58	53
Prewitt	33	23	25	16
Riverside	58	42	41	45

* 1958-1972 period.

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APPENDIX I

SNOW COURSE MEASUREMENTS as of FEBRUARY 1, 1977

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. 58-72
NORTH PLATTE BASIN					
<u>Laramie River</u>					
Deadman Hill	1/27	15	2.6	8.2	10.4
McIntyre	NS	---	---	---	---
Roach	1/28	24	5.2	12.5	---
<u>North Platte River</u>					
Cameron Pass	1/28	26	8.6	16.0	16.5
Columbine Lodge	1/28	29	6.8	12.4	14.3
Northgate	1/28	9	1.8	3.2	3.8
Park View	1/27	14	2.2	5.4	5.8
Willow Cr. Pass (B)	1/27	16	3.2	6.4	7.7
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Baltimore	1/28	11	2.8	3.1	5.1
Boulder Falls	1/27	18	3.7	6.0	7.1
University Camp	1/27	20	4.4	7.9	10.9
<u>Big Thompson River</u>					
Deer Ridge	1/28	0	0.0	3.2	2.9
Hidden Valley	1/28	11	1.9	5.2	6.4
Lake Irene (B)	1/26	25	4.9	11.4	13.8
Long's Peak	1/28	7	1.2	5.4	6.0
Two Mile	1/28	11	2.1	8.0	8.6
<u>Cache La Poudre</u>					
Bennett Creek	1/29	6	0.7	4.0	---
Big South	1/28	2	0.2	0.8	1.4
Cameron Pass	1/28	26	8.6	16.0	16.5
Chambers Lake	1/28	7	1.1	6.9	5.6
Deadman Hill	1/27	15	2.6	8.2	10.4
Hourglass Lake	1/29	6	0.7	4.2	---
Joe Wright	1/28	34	9.1	12.6	---
Lost Lake	1/27	12	2.2	7.6	7.7
Red Feather	1/27	6	0.8	4.2	4.0
<u>Clear Creek</u>					
Baltimore (B)	1/28	11	2.8	3.1	5.1
Berthoud Falls	1/28	17	4.0	6.2	8.3
Empire	1/28	9	2.2	3.2	4.5
Grizzly Peak (B)	1/26	27	5.8	10.4	10.6
Loveland Lift	1/26	34	9.1	10.6	12.2
Loveland Pass	1/26	22	5.0	8.2	9.0
<u>St. Vrain River</u>					
Copeland Lake	1/29	5	0.8	2.4	2.8
Ward	1/27	8	1.5	3.0	3.6
Wild Basin	NS	-	---	---	7.2
<u>South Platte River</u>					
Como	1/27	3	0.6	5.0	---
Geneva Park	1/28	1	0.1	4.1	---
Horseshoe Mt.	1/26	11	1.4	6.6	---
Hoosier Pass	1/28	14	3.0	8.2	8.0
Jefferson Creek	1/27	11	2.2	6.8	5.9
Mosquito	1/27	12	2.1	6.9	---
Trout Creek Pass	1/26	2	0.3	3.2	---
ARKANSAS BASIN					
<u>Arkansas River</u>					
Bigelow Divide	1/26	18	4.7	4.9	---
Cooper Hill (B)				8.0	6.9
East Fork	1/27	14	2.6	6.5	6.0
Four Mile Park	1/29	6	0.5	3.5	3.9
Fremont Pass	1/27	22	4.0	11.0	9.8
Garfield	1/28	16	2.8	8.2	8.5
Hermit Lake	1/27	13	2.8	4.5	---
Monarch Pass	1/28	20	4.0	7.8	10.3
Tennessee Pass	1/29	15	1.8	5.4	6.5
Twin Lakes Tunnel	1/21	6	0.9	5.3	6.0
Westcliffe	1/27	16	2.8	4.5	---

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. 58-72
<u>Cucharas River</u>					
Apishapa	1/28	17	4.2	5.5	4.5
Cucharas Creek	1/28	21	4.5	6.3	---
La Veta Pass (B)	1/28	20	4.8	3.4	5.6
<u>Purgatoire River</u>					
Bourbon	1/27	18	2.9	4.6	---
RIO GRANDE BASIN-COLO					
<u>Alamosa River</u>					
Silver Lakes	1/25	7	0.8	4.7	3.5
Summitville	1/27	16	2.2	9.0	11.9
<u>Conejos River</u>					
Cumbres	1/27	23	5.1	7.9	13.1
La Manga	1/27	20	3.6	9.2	---
Platoro	1/31	15	3.2	8.5	12.5
River Springs	NS	---	---	---	4.3
<u>Culebra River</u>					
Brown Cabin	1/27	16	2.4	---	---
Cottonwood (B)	1/27	15	2.3	---	---
Culebra	1/26	24	3.8	5.3	5.6
La Veta Pass (B)	1/28	20	4.8	3.4	5.6
Trinchera (B)	1/28	18	3.2	---	---
<u>Rio Grande</u>					
Cochetopa Pass	1/26	6	1.5	4.0	3.6
Grayback	1/27	13	2.0	8.6	---
Hiway	1/26	17	3.8	9.8	15.6
Lake Humphrey	1/27	9	1.2	5.1	4.8
Love Lake	1/28	8	1.0	5.2	---
Pass Creek	1/26	12	2.0	6.4	8.2
Pool Table	1/28	11	1.0	3.2	5.2
Porcupine	1/31	8	1.3	6.0	8.1
Santa Maria	1/31	2	0.1	2.3	3.3
Upper Rio Grande	1/31	8	1.4	4.8	5.8
Wolf Creek Pass	1/26	22	5.3	11.2	17.4
Wolf Cr. Summit (B)	1/26	21	4.8	11.6	18.5
RIO GRANDE BASIN-NM					
<u>Pecos River</u>					
Panchuela	1/27	14	2.8	3.0	2.5
<u>Rio Chama</u>					
Bateman	1/27	21	3.5	5.7	---
Chama Divide	1/31	11	1.5	3.0	2.9
Chamita	1/31	16	2.7	4.9	5.5
<u>Rio Grande</u>					
Alamitos	2/01	13	2.7	3.3	---
Big Tesuque	1/28	11	2.2	3.6	4.0
Cordova	NS	---	---	---	6.2
Elk Cabin	1/27	8	1.0	2.3	2.7
Hopewell	1/28	23	3.6	10.0	---
La Cueva	1/27	15	3.0	2.7	---
Palo	1/25	18	3.3	6.9	---
Payrole	1/28	14	3.4	4.3	6.1
Quemazon	1/31	16	3.5	2.9	6.1
Rio En Medio	1/28	18	3.7	5.1	6.0
Sandoval	2/01	13	2.6	1.0	3.5
Senorita Divide	1/27	19	3.9	3.9	---
Taos Canyon	1/24	17	4.0	6.8	2.7
Tres Ritos	2/01	12	3.7	4.0	3.3
<u>Rio Hondo</u>					
Taos Powderhorn	1/26	41	9.7	15.0	---
<u>Red River</u>					
Hematite Park (B)	1/25	14	2.6	4.6	2.9
Red River	1/25	11	2.7	5.2	3.7
Red River #2	1/25	18	3.5	6.3	---

NOTE: NS - No Survey
(B) - On Adjacent Drainage

APPENDIX I

SNOW COURSE MEASUREMENTS as of FEBRUARY 1, 1977

CURRENT INFORMATION					PAST RECORD	
SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		
				LAST YEAR	AVG. 58-72	
SAN JUAN-DOLORES BASIN						
<u>Animas River</u>						
Cascade	1/27	11	2.0	7.4	8.0	
Lemon	1/28	10	2.2	5.4	---	
Mineral Creek	1/27	17	2.6	8.0	9.9	
Molas Lake	1/27	12	2.1	7.0	8.7	
Purgatory	1/27	15	1.9	10.3	---	
Red Mt. Pass (B)	1/27	32	5.9	16.7	19.0	
Silverton Sub-Sta.	NS	---	---	6.2	5.6	
Spud Mountain	1/27	15	3.6	13.0	15.2	
<u>Dolores River</u>						
Lizard Head	1/28	10	2.0	7.0	10.4	
Lone Cone	1/28	16	3.0	12.2	11.8	
Ophir Loop	1/27	21	4.1	7.0	---	
Rico	1/28	9	1.2	3.8	5.6	
Telluride	1/27	15	2.2	5.2	4.7	
Trout Lake	1/27	17	2.8	7.3	8.1	
<u>San Juan River</u>						
Chama Divide (B)	1/31	11	1.5	3.0	2.9	
Chamita (B)	1/31	16	2.7	4.9	5.5	
Upper San Juan	1/26	26	5.4	12.8	19.1	
Wolf Cr. Pass (B)	1/2	22	5.3	11.2	17.4	
Wolf Cr. Summit	1/26	21	4.8	11.6	18.5	
GUNNISON BASIN						
<u>Gunnison River</u>						
Alexander Lake	1/28	19	3.5	9.6	12.7	
Blue Mesa	NS	---	---	---	---	
Butte	1/27	15	2.8	7.8	---	
Cochetopa Pass (B)	1/26	6	1.5	4.0	3.6	
Crested Butte	1/27	17	2.9	8.2	7.4	
Keystone	1/27	20	4.0	9.8	13.1	
Lake City	1/25	8	0.9	4.1	---	
Mesa Lakes (B)	1/26	17	2.4	6.6	10.5	
McClure Pass	1/26	20	3.8	8.5	11.1	
Park Cone	1/26	11	1.5	6.0	6.1	
Park Reservoir	1/27	20	3.8	11.1	14.6	
Porphyry Creek	1/28	22	4.5	8.5	10.0	
Tomichi	1/28	16	3.1	6.4	8.1	
<u>Surface Creek</u>						
Alexander Lake	1/28	19	3.5	9.6	12.7	
Mesa Lakes	1/26	17	2.4	6.6	10.5	
Park Reservoir	1/27	20	3.8	11.1	14.6	
<u>Uncompahgre River</u>						
Ironton Park	1/31	20	4.2	8.8	8.0	
Red Mountain Pass	1/27	32	5.9	16.7	19.0	
Telluride (B)	1/27	15	2.2	5.2	4.7	
COLORADO BASIN						
<u>Blue River</u>						
Blue River	1/28	14	2.4	5.6	5.2	
Fremont Pass	1/27	22	4.0	11.0	9.8	
Frisco Pass	NS	---	---	4.9	4.4	
Grizzly Peak	1/26	27	5.8	10.4	10.6	
Hoosier Pass (B)	1/28	14	3.0	8.2	8.0	
Shrine Pass	1/27	22	4.0	9.1	10.3	
Snake River	1/26	13	1.7	5.4	5.2	
Summit Ranch	1/26	12	2.3	3.9	---	
<u>Colorado River</u>						
Arrow	1/26	21	2.4	9.1	7.5	
Berthoud Pass	1/28	27	5.1	7.4	9.4	
Berthoud Summit	1/28	29	7.1	9.6	11.4	
Cooper Hill				8.0	6.9	
Fiddler Gulch	NS	---	---	---	9.0	
Glenmar Ranch	1/27	14	2.4	4.9	5.1	
Gore Pass	1/26	15	2.9	6.2	6.2	
Grand Lake	1/26	17	2.1	5.2	4.9	
Lake Irene	1/26	25	4.9	11.4	13.8	
Lapland	1/26	12	2.0	5.4	6.6	
Lulu	NS	---	---	---	---	
Lynx Pass	1/26	19	3.1	6.8	7.6	
McKenzie Gulch	1/28	10	1.2	3.8	4.1	
Middle Fork	1/27	16	2.8	5.6	5.7	
Milner	1/26	19	2.7	7.3	---	
North Inlet	1/28	14	2.2	5.0	5.1	
Pando	1/27	10	1.0	6.2	6.0	
Phantom Valley	1/26	16	2.6	5.5	6.5	
Ranch Creek	1/26	16	1.8	6.0	5.6	
Tennessee Pass (B)	1/29	15	1.8	5.4	6.5	
Vasquez	1/27	20	2.1	9.0	7.7	
<u>Roaring Fork</u>						
Aspen	1/27	20	2.3	10.3	10.0	
Independence Pass	1/21	16	1.7	7.9	9.7	
Ivanhoe	1/27	26	4.5	9.6	10.2	
Kiln	1/27	17	2.8	6.8	---	
Lift	1/27	23	3.5	10.3	10.1	
McClure Pass	1/26	20	3.8	8.5	11.1	
Nast	1/27	9	1.3	3.8	4.3	
North Lost Trail	1/26	15	3.0	6.7	10.0	
<u>Williams Fork River</u>						
Glenmar Ranch	1/27	14	2.4	4.9	5.1	
Jones Pass	1/28	26	3.1	7.4	8.7	
Middle Fork	1/27	16	2.8	5.6	5.7	
<u>Willow Creek</u>						
Granby	1/27	11	1.8	5.2	4.7	
Willow Cr. Pass	1/27	16	3.2	6.4	7.7	
<u>Plateau Creek</u>						
Mesa Lakes	1/26	17	2.4	6.6	10.5	
Park Reservoir	1/27	20	3.8	11.1	14.6	
Trickle Divide	1/27	23	4.3	12.3	16.0	
YAMPA BASIN						
<u>Elk River</u>						
Elk River	1/26	23	4.2	12.6	11.4	
Hahn's Peak	1/26	20	3.1	10.0	---	
<u>White River</u>						
Burro Mountain	1/26	20	4.4	7.0	11.5	
Rio Blanco	1/27	18	4.0	8.2	9.0	
<u>Yampa River</u>						
Bear River	NS	---	---	---	---	
Columbine (B)	1/28	29	6.8	12.4	14.3	
Croscho	NS	---	---	---	---	
Dry Lake	1/27	25	5.1	10.4	12.0	
Lynx Pass (B)	1/26	19	3.1	6.8	7.6	
Rabbit Ears	1/28	28	5.7	13.0	16.1	
Tower	1/27	50	12.5	24.4	---	
Yampa View	1/28	21	4.3	8.9	9.8	

NOTE: NS - No Survey
(B) - On Adjacent Drainage

LIST of COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado State University Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
Indian Service

Department of Commerce

NOAA, National Weather Service

Defence Department

Army Engineer Corps

Atomic Energy Commission

INVESTOR OWNED UTILITIES

Colorado Public Service Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver City of Greeley
City of Boulder City of Fort Collins

WATER USERS ORGANIZATIONS

Arkansas Valley Ditch Association
Colorado River Water Conservation District

IRRIGATION PROJECTS

Farmers Reservoir and Irrigation Company
San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company
Trinchera Irrigation Co.

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with the Snow Survey"*